

## 2 INTRODUCTION

### 2.1 BRIEF PROJECT HISTORY

#### 2.1.1 2006 US 160 Durango to Bayfield EIS and Record of Decision

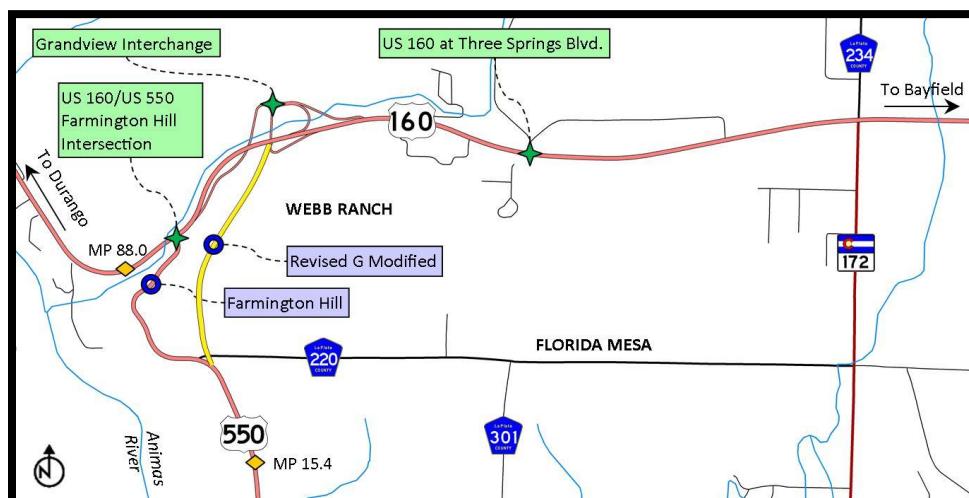
In May 2006, the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA) issued the *Final Environmental Impact Statement/Final Section 4(f) Evaluation for US Highway 160 from Durango to Bayfield, La Plata County, Colorado (2006 US 160 EIS)*. The *US 160 EIS* analyzed the environmental consequences of proposed improvements to the US 160 corridor. The document divided the corridor into four sections:

- Grandview Section
- Florida Mesa and Valley Section
- Dry Creek and Gem Village Section
- Bayfield Section

The Grandview Section is the one relevant to this study (see **Figure 2-1**, below). Here, the EIS Preferred Alternative (titled Alternative G Modified) included improvements to US 160 as well as a new four-lane alignment for the portion of US 550 from milepost 15.4, just south of La Plata County Road 220 (CR 220), northward to US 160. This new alignment would move US 550 to the east of the existing Farmington Hill alignment and skirt the western edge of Florida Mesa before connecting to US 160 with a trumpet interchange at US 160 milepost 88.9 (approximately 0.6 miles east of the existing US 160/US 550 Farmington Hill intersection at US 160 milepost 88.3).

The *US 160 EIS* was followed by the *Record of Decision, US Highway 160 from Durango to Bayfield, La Plata County, Colorado*, signed by FHWA on November 7, 2006 (2006 US 160 ROD). The *US 160 ROD* documented FHWA's decision to make Alternative G Modified the Selected Alternative for the Grandview Section of the project corridor.

**Figure 2-1: Grandview Section Project Vicinity Map**



### 2.1.2 Supplemental EIS/Section 4(f) Evaluation

After the release of the 2006 US 160 ROD, CDOT began preliminary design of Alternative G Modified. During this period, two issues arose that prompted CDOT to prepare a Supplemental Draft EIS/Section 4(f) Evaluation for the US 550 south connection to US 160 portion of the project:

- A gas well was constructed on the Marie J. Webb Ranch (Webb Ranch), which lies on Florida Mesa, in the US 550 alignment of Alternative G Modified.
- A portion of the Webb Ranch property was determined eligible for the National Register of Historic Places (NRHP).

The Supplemental Draft EIS/Section 4(f) Evaluation and key public comments, which led to this Independent Alternatives Analysis, are described below.

#### **Supplemental Draft EIS/Section 4(f) Evaluation**

In October 2011, CDOT issued the *US 550 South Connection to US 160 Supplemental Draft Environmental Impact Statement/Section 4(f) Evaluation to the US Highway 160 from Durango to Bayfield EIS (2011 SDEIS)*. This document evaluated the following alternatives for the US 550 south connection:

- No-Action Alternative
- US 550 at US 160 At-Grade Intersection Alternative and Variations T1.4, T1.6, and T4.4 (2011 SDEIS Figure 2-2)
- Partial Interchange at the Existing US 550/US 160 (South) Intersection Alternative and Variations T2.4, T2.6, T3.4, and T3.6 (SDEIS Figure 2-3)
- Revised Preliminary Alternative A (2011 SDEIS Figure 2-4)
- G Modified/Revised G Modified Alternative (2011 SDEIS Figure 2-5)
- F Modified/Revised F Modified Alternative (2011 SDEIS Figure 2-6)
- Eastern Realignment Alternative (2011 SDEIS Figure 2-7)
- Western Realignment Alternative (2011 SDEIS Figure 2-8)

In the 2006 US 160 EIS, the requirements of the National Environmental Policy Act (NEPA) and the Clean Water Act (CWA) related to the project were merged (see pp. 2–5 of the 2006 US 160 EIS for more details). The 2011 SDEIS used the same merged screening criteria, and added factors related to Section 4(f) of the Transportation Act of 1966, as amended (Section 4(f)). This process ensured that the analysis met the combined requirements of all three applicable laws.

To this end, the 2011 SDEIS evaluated the alternatives using a two-step screening process. Screening Level 1 determined if the alternatives met Purpose and Need for the project, and whether they met CWA criteria to be considered a “practicable” alternative. **Table 2-1** describes the project Purpose and Need, and summarizes the Level 1 screening criteria.

Table 2-1: Purpose and Need and Clean Water Act Practicability Criteria

Purpose and Need Criteria	Description
<b>Capacity:</b> Increase travel efficiency/capacity to meet current and future needs	Provides a projected 2030 peak-period level of service (LOS) of D or better
<b>Safety:</b> Improve safety for the traveling public by reducing the number and severity of crashes	Improves existing design and safety deficiencies to meet current standards without creating unsafe conditions by increasing conflict opportunities between vehicles, vehicles/wildlife, or vehicles/other objects
<b>Access control:</b> Control access for safety and mobility flow improvements	Meets or exceeds the minimum CDOT, FHWA, and AASHTO* spacing, access, and operational requirements
Clean Water Act Criteria for Alternative to be “Practicable”	Description
Available	Meets Purpose and Need criteria
Capable of being done considering logistics	Allows for maintained access and provides mobility during construction without creating technical challenges for construction (such as slope instability or the need to remove significantly larger amounts of material than with other alternatives)
Capable of being done considering existing technology	<i>The 2011 SDEIS stated that all the alternatives are constructable with existing technology, so this criterion was not included</i>
Cost	Cost should not be substantially greater than other alternatives (more than twice the cost of the lowest-cost alternative)

\*American Association of State Highway and Transportation Officials

Alternatives that met the Level 1 screening criteria were advanced to Level 2 screening—a more detailed comparison using criteria from NEPA, CWA, and Section 4(f)—to identify the Preferred Alternative. See the *2011 SDEIS* for details of the Level 2 screening criteria and process.

The *2011 SDEIS* concluded that the Preferred Alternative for the US 550 south connection is the Revised G Modified Alternative (RGM), which is essentially the same as the Alternative G Modified identified as the Selected Alternative in the *2006 US 160 ROD*. The primary difference is that a portion of the US 550 alignment was shifted east to avoid a gas well that was installed in the G Modified US 550 alignment. Because of this shift, “Revised” was added to the title of the alternative.

#### **Webb Ranch Response to 2011 SDEIS**

During the public comment period on the *2011 SDEIS*, CDOT received a letter dated November 28, 2011, from attorney Thomas G. McNeill on behalf of Webb Ranch, a historic 515-acre property located in the RGM right-of-way (ROW). This letter challenged the choice of RGM as the Preferred Alternative, stating that “*FHWA and CDOT have failed to meet the mandate of Section 4(f)*”. In this letter, Webb Ranch proposed a new alternative, Alternative R, with four design variations (R1 to R4). Alternative R generally follows existing US 550, with a hybrid diamond interchange at the location of the existing US 160/US 550 Farmington Hill signalized intersection (US 160 milepost 88.3).

**Supplemental Final EIS/Section 4(f) Evaluation**

Once the public comment period on the 2011 SDEIS closed, CDOT began work to address the Webb Ranch concerns and other public comments. In June 2012, it released the *US 550 South Connection to US 160 Supplemental Final Environmental Impact Statement/Section 4(f) Evaluation to the US Highway 160 from Durango to Bayfield EIS (2012 SFEIS)*.

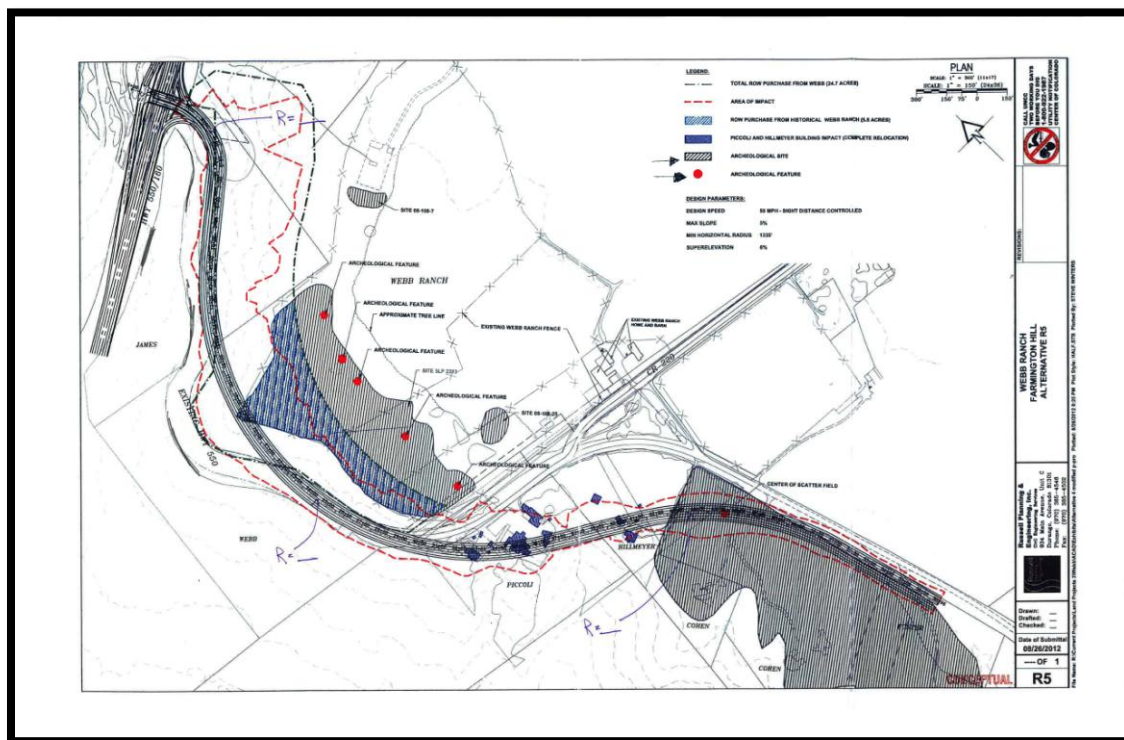
The 2012 SFEIS added Alternative R to the mix of options already studied in the 2011 SDEIS. The variations of Alternative R are illustrated in Figures 2-5a and 2-5b of the 2012 SFEIS. The report notes that Alternative R did meet the capacity and access elements of the Purpose and Need but was eliminated because it did not meet the safety component of Purpose and Need.

The 2012 SFEIS reached the same conclusion as the 2011 SDEIS: that RGM is the Preferred Alternative for the US 550 south connection.

**Webb Ranch Response to 2012 SFEIS**

During the public comment period on the 2012 SFEIS, CDOT received another letter from Thomas G. McNeill on behalf of Webb Ranch, dated August 27, 2012. This letter challenged CDOT's elimination of Alternative R on the basis of safety and its choice of RGM as the Preferred Alternative. In the letter, Webb Ranch proposed a new Alternative R design variation called R5 to address various safety issues in the R1 to R4 variations and to minimize harm to Section 4(f) properties. **Figure 2-2** illustrates Design Variation R5 as presented by the Webb Ranch.

**Figure 2-2: Design Variation R5, Presented by Webb Ranch**



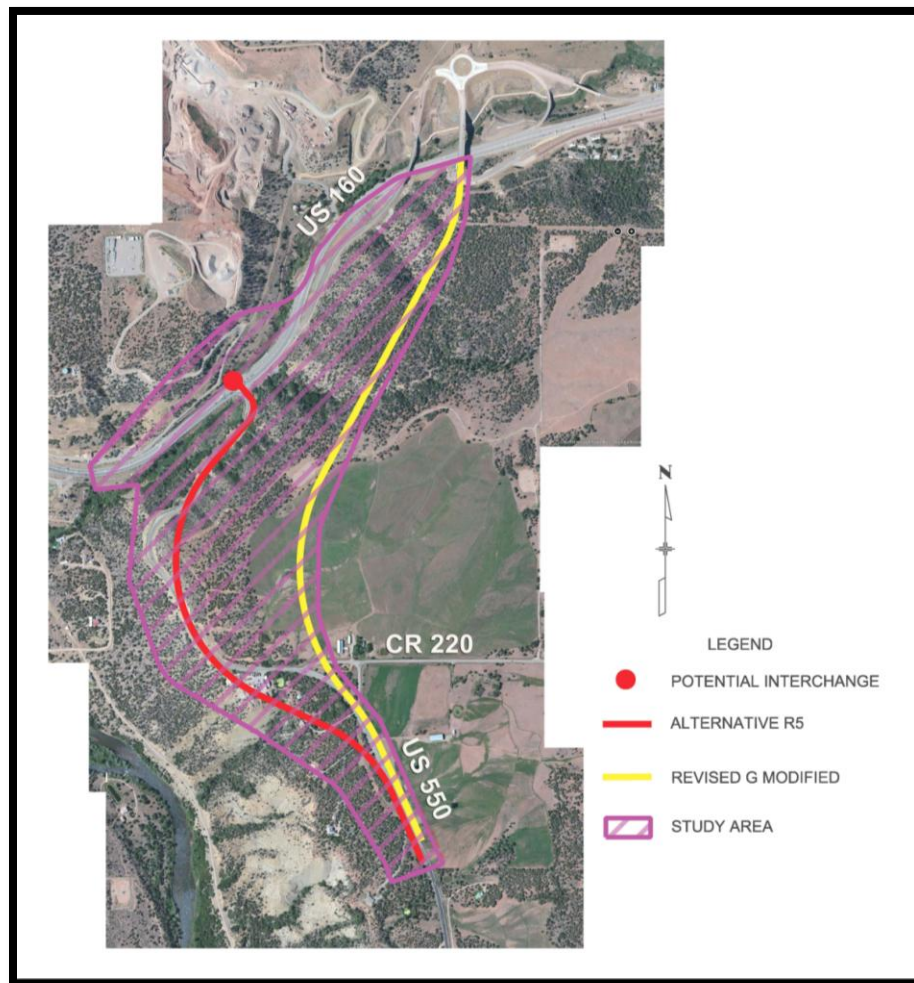
### 2.1.3 Independent Alternatives Analysis

Because of these challenges to the 2012 SFEIS, CDOT chose to hire a consultant team to conduct this study, the *US 550 South Connection to US 160: Independent Alternatives Analysis (Independent Alternatives Analysis)*.

## 2.2 SCOPE OF THE INDEPENDENT ALTERNATIVES ANALYSIS

The purpose of the *Independent Alternatives Analysis* is to thoroughly analyze the R5 design variation with respect to Purpose and Need and NEPA/Clean Water Act/Section 4(f) issues, compare it to RGM, and identify/analyze other promising alignments within the area bounded by those two alternatives. **Figure 2-3** illustrates the study area.

**Figure 2-3: Independent Alternatives Analysis Study Area**



This study evaluates three categories of alternatives. These are:

- No-Action Alternative
- On-Alignment Alternatives
- Off-Alignment Alternatives

### 2.2.1 No-Action Alternative

According to the 2012 SFEIS, the No-Action Alternative does not meet the Purpose and Need for the project. Thus, this study will not consider it as a stand-alone alternative. Instead, it will be used only in the Traffic and Safety portions of the analysis as a baseline for comparison with the other alternatives being studied.

This study defines the No-Action Alternative in essentially the same way it was defined in the 2006 US 160 EIS, with the following changes:

- Addition of all construction that has occurred in the project area since 2006. This includes the Grandview Fourth Lane project, Ramp B, and the Grandview Phase 3 project.
- Addition of the Wilson Gulch Rd. project, which has been designed, has received Responsible Acceleration of Maintenance and Partnerships (RAMP) funding, and is scheduled for construction later in 2014 and 2015.

This definition of the No-Action Alternative is slightly different from the one used in the 2012 SFEIS, which assumed completion of the US 160 project as defined in the 2006 US 160 ROD with the exception of the US 550 south connection to US 160. The 2012 SFEIS No-Action Alternative also included additional auxiliary lanes on US 160 from the western limit of the 2006 EIS study area to CR 233 (Three Springs), which were noted as a design variation.

### 2.2.2 On-Alignment Alternatives

On-alignment alternatives are those where the US 550 south connection would generally follow the existing US 550 corridor along Farmington Hill. Because one of the fundamental purposes of this study was to develop the Webb Ranch R5 design variation to a more detailed level, the R5 US 550 alignment was the primary on-alignment design studied for the southern part of the project area.

Several design variations were studied for connecting the R5 US 550 alignment to US 160. These included use of an at-grade signalized intersection (similar to existing) or a grade-separated interchange. For the grade-separated interchange option, several different configurations were developed. These configurations were evaluated, and the least impactful configuration was chosen for further design and analysis. The R5 section of the Alternatives Analysis chapter (Chapter 6) describes this in detail.

### 2.2.3 Off-Alignment Alternatives

Off-alignment alternatives are those where the US 550 south connection would be relocated to a new alignment, away from the existing roadway down Farmington Hill. Within the limits of the Independent Alternatives Analysis study area, off-alignment alternatives include:

- Alternative Revised G Modified (RGM)
- Alignments located between R5 and RGM (many of these are considered design variations of RGM, and thus have been labeled RGM2, RGM3, and so on.)

Chapter 6 describes all of the alternatives studied in more detail.

### 2.2.4 Study/Analysis Process

In preparing this Independent Alternatives Analysis, we have accomplished the following key tasks:

- Determining design criteria for alternative designs (see Chapter 5)
- Updating environmental resource mapping to incorporate the following (see Chapter 7):

- ❖ Changes in existing conditions between the initial resource mapping efforts (1999 to 2006) and actual 2013 field conditions
- ❖ Changes in environmental resource regulations between the initial resource mapping efforts (1999 to 2006) and 2013
- ❖ Expanding the mapping of various resources to cover all areas within the Independent Alternatives Analysis study area boundary
- Meeting with property owners and other key stakeholders to learn their needs, desires, and concerns (see **Section 2.3**, below)
- Developing preliminary design of R5 (see Chapter 6)
- Developing preliminary design of RGM (see Chapter 6)
- Studying alignments for the US 550 south connection between R5 and RGM, with the goal of minimizing Section 4(f) impacts and meeting CWA requirements (see Chapter 6). This included:
  - ❖ Brainstorming alignment possibilities
  - ❖ Assessing pros and cons of the possibilities
  - ❖ Refining the alignments to eliminate any identified problems
  - ❖ Choosing the best option to carry forward for more detailed comparison to the R5 and RGM alternatives, then developing the design of that alignment to a similar level of completion as the R5 and RGM designs
- Assessing the traffic operations and expected safety performance of the various alternatives (see Chapters 3 and 4)
- Analyzing R5, RGM, and the best compromise between the two with respect to the following:
  - ❖ Purpose and Need requirements (see Chapter 6)
  - ❖ Engineering and constructability considerations (see Chapter 6)
  - ❖ Section 4(f) requirements (see Chapter 7 )
  - ❖ CWA Section 404 requirements (see Chapter 7)
  - ❖ Impacts to other environmental resources covered under NEPA (see Chapter 7)

## 2.3 STAKEHOLDER INVOLVEMENT

An important element of the Independent Alternatives Analysis project was involvement of key stakeholders. During the course of the project, the study team contacted adjacent landowners and local government officials to understand their needs, desires, and concerns regarding the US 550 south connection. All parties were contacted by phone and invited to meet with the project team; some discussed their concerns over the phone and declined to meet in person.

Key stakeholders included the following:

- The City of Durango
- La Plata County
- The Marie J. Webb Ranch (Webb Ranch), a historic Section 4(f) property that would be crossed by the 2011 SEIS Preferred Alternative (RGM)
- Growth Fund Real Estate Group (GFREG), the real estate division of the Southern Ute Indian Tribe Growth Fund (GFREG is developing the Three Springs master-planned community in Durango, just northeast of the Grandview interchange.)
- The Piccoli family, which owns the Eagle Block business and two homes that would need to be relocated to make way for the R5 alignment of US 550
- The Craig family, which owns several large parcels of land east of US 550 south of CR 220, and leases others for ranching. The original historic Craig Limousin Ranch has been divided into several parcels

now owned by different parties. The entire boundary of the original property is protected by Section 4(f).

Some of the most important concerns raised at the face-to-face meetings between the design team and stakeholders are summarized in **Table 2-2** below. Full minutes of the meetings are included in Appendix O.

**Table 2-2: Key Stakeholder Input From Face-to-Face Meetings**

Meeting Date and Stakeholder Group	Stakeholder Attendees	Key Stakeholder Desires and Concerns
September 25, 2013: Growth Fund Real Estate Group (GFREG)	Pat Vaughn (president), Pat Morrissey (vice president of Tierra Group LLC Regional, a division of GFREG)	<ul style="list-style-type: none"> <li>• The connection of US 550 to US 160 via the Grandview interchange is vital to the success of the Three Springs development.</li> <li>• GFREG desires a grade-separated access for the SB US 550 to EB US 160 movement at the Grandview interchange because they believe an at-grade left turn would be dangerous.</li> <li>• To pursue these goals, GFREG funded their own study of a possible compromise alignment between R5 and RGM. They call this alignment the Community Alignment (it is called RGM3 in this study). GFREG stated that they have obtained verbal acceptance of the alignment from both the Webb and Piccoli families.</li> </ul>
October 9, 2013: Piccoli family/the Eagle Block Company	Don, Jerry, and Wilma Piccoli, local residents and owners of Eagle Block	<ul style="list-style-type: none"> <li>• The family favors RGM instead of R5 because R5 which would eliminate their business and two of their homes.</li> <li>• They would like to preserve as much of their property as possible for running their business.</li> <li>• The family would like to reconnect the parcels they own on the north and south sides of existing US 550.</li> <li>• The family would like the access to their business to accommodate large trucks (WB-67) and provide better sight distance than the existing entrance.</li> <li>• The family is concerned about traffic noise and requests separation between the highway and their business.</li> </ul>
October 10, 2013: City of Durango	Gregg Boysen (city engineer), Kevin Hall (assistant director of community development), Scott	<ul style="list-style-type: none"> <li>• The area to the north and east of the intersection of CR 220 and US 550 is one of potential development for the city and lies within its long-range-planning boundary.</li> </ul>

Meeting Date and Stakeholder Group	Stakeholder Attendees	Key Stakeholder Desires and Concerns
	McClain (landscape architect)	<ul style="list-style-type: none"> <li>• It is very important for US 550 to connect to the Grandview interchange.</li> <li>• City representatives feel that the CR 220 and US 550 intersection will eventually become signalized, as growth occurs.</li> <li>• Long-range plans should consider pedestrians and various alternative modes of transportation to connect the growth area between CR 220 and US 160 to Three Springs and downtown Durango.</li> <li>• The interchange associated with R5 introduces significant challenges to connect the city's SMART 160 trail system from the Animas River Trail to Three Springs.</li> <li>• Using CR 220 as a detour during construction would be unsafe.</li> </ul>
October 10, 2013: La Plata County	Bobby Lieb (county commissioner), Joe Kerby (county manager), Jim Davis (county engineer), Damian Peduto (county planner)	<ul style="list-style-type: none"> <li>• The county opposes the R5 alternative because it does not address the steep grades on Farmington Hill and requires relocation of the Piccoli family homes and their Eagle Block business.</li> <li>• County representatives feel the connection of US 550 to the Grandview interchange represents good stewardship of taxpayer funds and allows for economic growth.</li> <li>• The county would like to consider using the vacated US 550 ROW as a bicycle trail.</li> <li>• The county has a long-term vision to convert its existing gravel pit north of the US 550/US160 Farmington Hill intersection to a multi-use fairgrounds site (this could impact traffic patterns and access needs in the area).</li> </ul>
October 11, 2013: Chris Webb, Don Piccoli, GFREG, City of Durango, La Plata County	Chris Webb, owner of the Marie. J. Webb Ranch	<ul style="list-style-type: none"> <li>• Mr. Webb would like to keep the irrigated portion of his ranch undisturbed. In addition, the existing ponds would have to be preserved or relocated.</li> <li>• He wants to maintain the view to the northwest from his house, and would like the US 550 alignment located as far to the west as possible.</li> <li>• Mr. Webb feels the "Community Alignment" option (RGM3 in this study; see Chapter 6) represents a more</li> </ul>

Meeting Date and Stakeholder Group	Stakeholder Attendees	Key Stakeholder Desires and Concerns
		<p>complete design with respect to stakeholder consensus than previous alternatives.</p> <ul style="list-style-type: none"> <li>• He wants to retain access to/ownership of the remainder parcel of his property west of RGM3, rather than having it be acquired by CDOT.</li> <li>• He supports saving the Eagle Block business.</li> <li>• Mr. Webb suggests eliminating the triangular parcel at the CR 220 intersection to lessen existing problems with loitering.</li> </ul>
	Don Piccoli	<ul style="list-style-type: none"> <li>• Mr. Piccoli feels “Community Alignment” (RGM3) meets goals of improved truck access.</li> <li>• He feels RGM2 option does not meet the needs of Eagle Block business because it encroaches too far onto his property.</li> <li>• It is acceptable to the Piccolis if the pond on their property is filled in or goes dry.</li> </ul>
	GFREG: Pat Vaughn, Pat Morrissey, Gary Whalen (senior vice president, regional division)	<ul style="list-style-type: none"> <li>• GFREG reiterated the desires expressed at the September 25, 2013, meeting (see above).</li> <li>• While the Southern Ute Tribe is concerned with the archaeological sites in the project area, it considers the sites on Webb Ranch to be useful for data gathering only.</li> </ul>
	City of Durango: Ron LeBlanc (city manager), Greg Hoch (director of planning and community development), Kevin Hall, Gregg Boysen	<ul style="list-style-type: none"> <li>• The city will support any alignment that has consensus among stakeholders.</li> <li>• The city is in favor of flatter grades (compared to existing) approaching the city limits.</li> <li>• The city wants to ensure that the chosen alignment is safe.</li> </ul>
November 21, 2013: Craig Ranch	Philip Craig, ranch representative	<ul style="list-style-type: none"> <li>• Mr. Craig is against the Eastern Realignment proposed in the 2012 SFEIS because of the significant impacts to his property</li> <li>• He feels the linear ROW acquisition on the west frontage of his property along US 550 associated with RGM and similar alignments would be acceptable.</li> <li>• Mr. Craig stated that he also speaks on</li> </ul>

Meeting Date and Stakeholder Group	Stakeholder Attendees	Key Stakeholder Desires and Concerns
		behalf of Winston Puig, who owns another portion of the original Craig Ranch. He said that Mr. Puig is not opposed to the proposed widening of US 550.
January 9, 2014: GRFEG and Chris Webb	Pat Vaughn, Pat Morrissey, Chris Webb	<ul style="list-style-type: none"> <li>All parties prefer the RGM5 design variation above RGM2, RGM3, and RGM4.</li> </ul>
January 30, 2014: City of Durango and La Plata County	City of Durango (Gregg Boysen, Greg Hoch, Scott McClain)	<ul style="list-style-type: none"> <li>The city requested that the SMART 160 trail be considered in the design process, as this study will help determine where to locate the trail bridge over US 160.</li> <li>The city desires to use the vacated US 550 ROW as a trail.</li> </ul>
	La Plata County (Jim Davis, Damian Peduto)	<ul style="list-style-type: none"> <li>The county wants to ensure that the distance between the gas well on Webb Ranch and the proposed alignment meets county and state regulations.</li> <li>If CR 220 is used as a detour route, it must be improved to meet current standards.</li> </ul>
November 21, 2014 CDOT, Growth Fund Real Estate Group City of Durango Eagle Block MJW Ranch	CDOT City of Durango CDOT: Steven Cross, Nancy Shanks, Ed Archuleta, Tony Cady, City of Durango: Kevin Hall, Gregg Boysen Growth Fund Real Estate Group: Pat Vaughn, Patrick Morrissey, Gary Whalen Eagle Block: Jerry Piccoli MJW Ranch: Chris Webb	The independent design team recommended alternative RGM6. FHWA has determined that alternative R5 is not prudent CDOT adopted the design variation. RGM6 as the preferred solutions. There was unanimous support for RGM6.